

MY FIRST YEAR'S IMPRESSION OF THE RURAL HIGHWAY COUNTY AID PROGRAM

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First, I would like to stress that I do not wish to pose as an authority on road building. I have had some experience in it, and have had approximately 15 years of engineering experience in the civil engineering field, in one phase or the other, but I came to this conference to try to learn something rather than dispense information, so if some of you gentlemen don't agree with what I have to say, there is a good chance that you are correct. However, I believe there are many problems which face the average County Engineer, that have no clear cut answers, and opinions are only as good as they prove out to be in actual practice under varying circumstances. In any event, the Commissioner of Rural Highways was nice enough to ask me to take part in this program, and I do appreciate that very much.

Daviess County, located in the western part of the state, has one second class city (Owensboro) with a population estimated at from forty-five to fifty thousand at present. Owensboro has a Planning and Zoning Commission with jurisdiction out to the three mile limit as prescribed in KRS, Section 100.360. The total land area encompasses approximately 432 square miles and is criss-crossed with approximately 596 miles of county roads. There are also approximately 111 miles of State roads plus 51 miles of Federal numbered highways. Daviess County spent \$229,267.58 out of its own budget last year on county roads, plus the amounts received under the Rural Highway program and that constructed by contract under the Rural Secondary program.

Daviess County has approximately 100 miles of black-topped county roads, or did have until the last big thaw. We have not had a chance to appraise the complete damage caused by the past winter, but one thing is certain, it played havoc with practically all of our roads, and we hope to use our Rural Highway funds for Fiscal 1958-59 to help repair the heavy damage.

The Rural Highway program, of course, is based on KRS 179.410. It seems to me to be a very fair and equitable law. The Department of Highways allocated approximately \$52,000.00 to Daviess County during Fiscal Year 1957-58, less the Highway Department's cost of administration. The above amount, called the Rural Highway fund, was used to purchase materials to construct approximately 11.8 miles of blacktop road in Daviess County on existing traffic bound stone or gravel bases. The County used its own forces and equipment to perform the work. The equipment involved consisted of the following:

- (A) 2 graders (115 H.P.)—sometimes 3.
- (B) 1 pressure distributor (1,000 gals. capacity).
- (C) 1 three wheel, 10 ton roller.

The materials used consisted of the following:

- (A) Prim coat of RT-2 at the rate of 0.50 gals. per square yard.
- (B) Aggregate at the rate of 151 lbs. per square yard of which 50% were No. 6's and 50% were No. 9's.
- (C) Liquid asphalt, MC-4, at the rate of 1.25 gals., more or less as required to coat the aggregate, per square yard. This oil was delivered to the site in truck transports at a temperature of approximately 180°F.

The surface installed had a compacted thickness of approximately 1½", and its application conformed in general, but not in every particular, to the Kentucky Highway Specification for a Class C-1 mix. Some of these roads were subsequently sealed with RS-2 and No. 9 chips, but this seal coat was paid for directly out of County funds. We completed the installation of blacktop under the R.H. program about the middle of August. I believe that the finished product was about equal in quality to that done by contractors in the area and had the advantage of being completed and in service a few months after the money became available. In fact, our 1957-58 R.H. program was completed before the contractor who held our 1956-57 R.H. program completed the work under that contract. The Fiscal Court feels that the public should not have to wait a year or more after the specified completion date to get improvements. Our relations with local contractors have been good, and they do good work; but we feel that they should not bid on work which they cannot reasonably expect to complete on time, regardless of weather conditions. We also believe that we can save around 15% on the cost of contract similar to that performed last summer. This latter claim, of course, is a controversial matter; but I believe I can produce figures to support our contention. However, last year the paper work, estimates, etc., as well as procedures for obtaining materials were new to us, and largely because of this, the suffer was well advanced before bids for our R.H. stone were let. When the bids did come in, it was deemed inadvisable to reject them because it was felt that further delay might not allow us adequate time to complete our blacktop program before bad weather. This year we hope to get our first bids in plenty of time to reject them if they are above what we consider the average cost of stone in our locality.

In connection with setting up our program, representatives from the Highway Department's District Maintenance Office called at our County Courthouse and helped in setting up our program. The Highway Department requires that the County Engineer submit an estimate to show the proposed expenditures by roads. The estimate shall consist of the following:

(1) A Rural Highway Series map of the County with the sections of roads designated for treatment shown shaded in color. The map shall be the type that shows all county roads designated by R.H. numbers.

(2) An accurate written description of the beginning and end points of proposed road improvements for each road.

(3) The length and width of each proposed improvement. The length should be determined with reasonable accuracy, either by tape or some type of distance wheel that measures to the nearest foot.

(4) Type of improvement, rate of application of each material per square yard, total quantities and total costs for each road section, and total costs of all projects. The total cost, of course, must be approximately equal to the funds available.

The Highway Department's Maintenance Office was very helpful to us and we wish to take this opportunity to thank them for their help. We feel that they had the good interests of Daviess County at heart and did everything possible to aid in the successful completion of our R.H. program.